

the Exchequer's accounts to balance.³

Other aspects of demographic behaviour, on the other hand, show only regularities peculiar to particular societies because customs differ. Few generalisations about marriage, for example, hold good universally. There are societies in which a man is free to marry any woman except a few of his closest relatives, his mother, sister, aunt, daughter, niece. In others his choice may be severely circumscribed. In much of India until recently, for instance, a man was obliged to marry within his subcaste but was debarred from marriage with a wide group of kin having in common a distant ancestor reckoned through the father's line. Moreover, he was not permitted to marry any woman living in his own village or a neighbouring one: and still other restrictions might also apply to him.⁴ In some societies it is almost unknown for a woman not to marry, and marry moreover at or soon after the onset of puberty; in others large numbers of women remain single for life (in Ireland in 1901 22 per cent of all women in the age-group 45-54 were still single).⁵ In some societies a man may take only one wife; in others several. There are societies in which a marriage can normally be dissolved only by death; others in which the mutual consent of the partners, or even the decision of one partner, can bring a match to an end. Where the average age of marriage is as high as 30, rare but not unknown, even those women who do marry must expect to spend half of their fertile life in social situations in which they are unlikely to have intercourse or bear children. Where it is as low as the teens many women will bear children throughout their fertile period.

The family

The basic unit of demographic behaviour is the family, the most nearly universal of all institutions. The measures used by demographers are all built up from events which occur in a family setting. Almost all births and deaths modify an existing family. In the case of marriages not only are two existing families modified, but a new family is formed. Demography measures the timing and



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E. A. Wrigley

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To my wife

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In the diagrams red represents fertility and green represents mortality throughout.



1 Historical demography



1 Historical demography

Population characteristics

When Kant wished to illustrate the notion that even historical events whose occurrence seems quite random and unpredictable may in the mass show notable regularities, he turned to population.¹ Whereas it would be hazardous indeed to predict the day of any one man's death, or the date of a young girl's marriage and the dates on which she will give birth to children, for any thousand men or young girls much more confident predictions can be made. In studying the characteristics of large populations patterns are found. Women are not equally likely to marry at all ages: nor are men equally likely to die at all times of life.

Some of the regularities which are revealed by the study of populations are found in all societies and persist even in cases which at first sight seem very different. For example, it is probably true of all societies that the first few hours of a baby's life are those in which the risk of death is greatest, that the risk declines from birth, rapidly at first and then very slowly, to reach a minimum usually in the early teens. Thereafter the danger of dying for each unit of time lived rises with increasing rapidity as the years pass. The shape, therefore, of any one schedule of mortality by age will have much in common with any other, though its level may be such as to mean an expectation of life at birth as low as 20 years or as high as 75 (see figure 1.1).

Knowledge of regularities of this type enables governments today accurately to forecast many needs. For example, the number of school leavers entering the labour force ten years hence can be calculated with only small margins of doubt from the number of young children today. Ignorance of these regularities sometimes led governments in the past into errors which now appear comical. When Kant was a young man, for instance, the British government granted Exchequer life annuities without distinction of age or sex to help to attract loans. As a result the Exchequer lost money, for many shrewd speculators (mostly Dutchmen) took out annuities on behalf of young girls whose expectation of life was far too good for

Figure 1-1 Age-specific mortality rates (per 1000)
 where expectation of life is 30 and 70 years.
 The shapes of the curves are similar
 in spite of the very different absolute rates.²
 The vertical scale is logarithmic.

